CHAPTER 4

POINT AND NONPOINT SOURCE CHARACTERIZATION OF THE UPPER DUCK RIVER WATERSHED

4.1. BACKGROUND. This chapter is organized by HUC-10 subwatershed, and the description of each subwatershed is divided into four parts:

i. General description of the subwatershed
ii. Description of point source contributions
ii.a. Description of facilities discharging to water bodies listed on the 2002 303(d) list
iii. Description of nonpoint source contributions

The Upper Duck River Watershed (HUC 06040002) has been delineated into seven HUC 10-digit subwatersheds.

Information for this chapter was obtained from databases maintained by the Division of Water Pollution Control or provided in the WCS (Watershed Characterization System) data set. The WCS used was version 2.0 (developed by Tetra Tech, Inc for EPA Region 4) released in 2003.

WCS integrates with ArcView® v3.x and Spatial Analyst® v1.1 to analyze user-delineated (sub)watersheds based on hydrologically connected water bodies. Reports are generated by integrating WCS with Microsoft® Word. Land Use/Land Cover information from 1992 MRLC (Multi-Resolution Land Cover) data are calculated based on the proportion of county-based land use/land cover in user-delineated (sub)watersheds. Nonpoint source data in WCS are based on agricultural census data collected 1992–1998; nonpoint source data were reviewed by Tennessee NRCS staff.

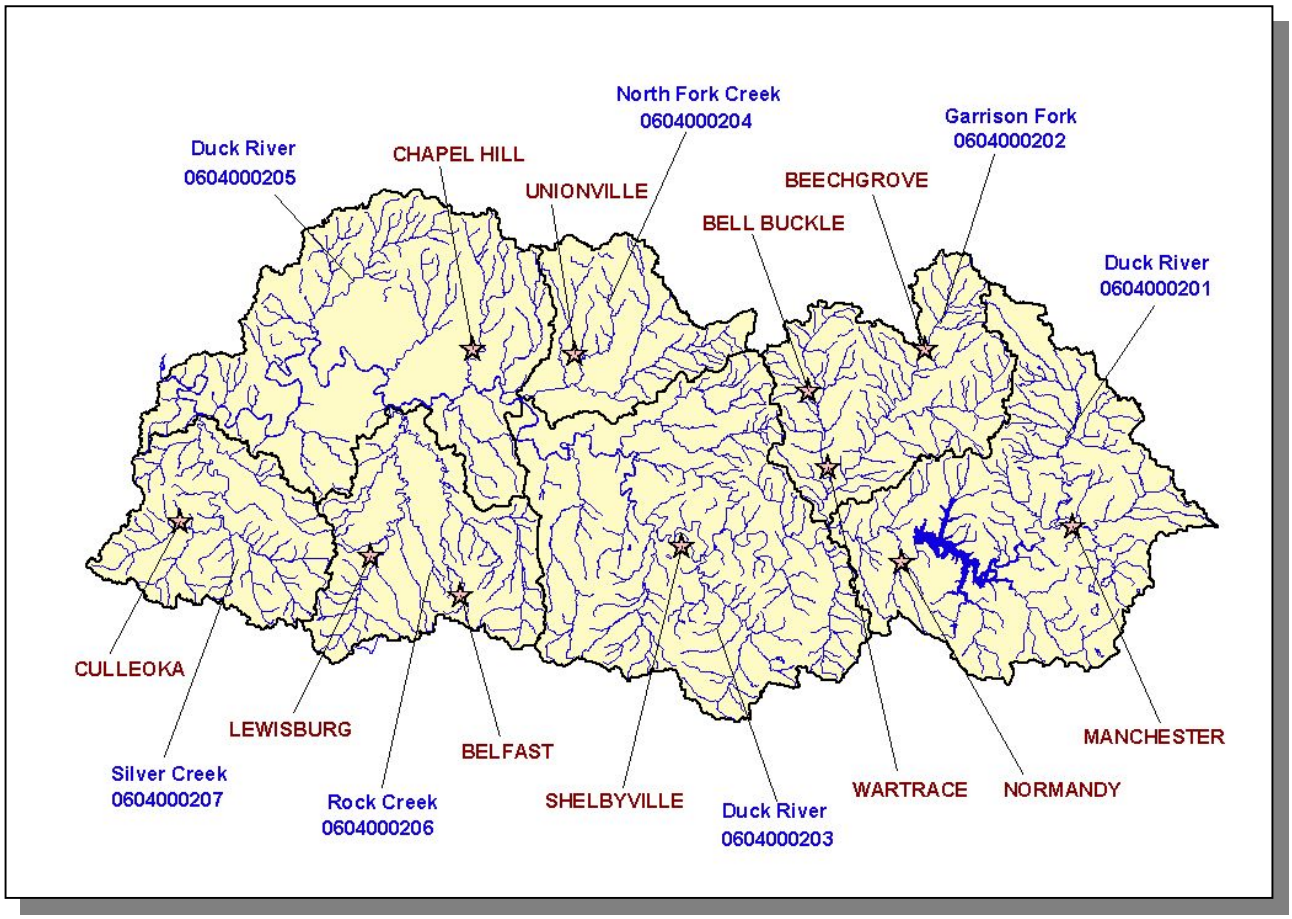

Figure 4-1. The Upper Duck River Watershed is Composed of Seven USGS-Delineated Subwatersheds (10-Digit Subwatersheds). *Locations of Beech Grove, Belfast, Bell Buckle, Chapel, Hill, Culleoka, Lewisburg, Manchester, Normandy, Shelbyville, Unionville, and Wartrace are shown for reference.*

4.2. CHARACTERIZATION OF HUC-10 SUBWATERSHEDS. The Watershed Characterization System (WCS) software and data sets provided by EPA Region IV were used to characterize each subwatershed in the Upper Duck River Watershed.

HUC-10	HUC-12	
0604000201	060400020101 (Duck River)	060400020105 (Duck River)
	060400020102 (Wolf Creek)	060400020106 (Norman Creek)
	060400020103 (Normandy Lake)	060400020107 (Shipman Creek)
	060400020104 (Crumpton Creek)	
0604000202	060400020201 (Garrison Fork)	060400020203 (Wartrace Creek)
	060400020202 (Noah Creek)	
0604000203	060400020301 (Duck River)	060400020306 (Duck River)
	060400020302 (Thompson Creek)	060400020307 (Little Sinking Creek)
	060400020303 (Little Flat Creek)	060400020308 (Fall Creek)
	060400020304 (Flat Creek)	060400020309 (Sinking Creek)
	060400020305 (Sugar Creek)	
0604000204	060400020401 (Upper North Fork Creek)	060400020404 (Weakley Creek)
	060400020402 (Alexander Creek)	060400020405 (Clem Creek)
	060400020403 (Lower North Fork Creek)	
0604000205	060400020501 (Duck River)	060400020505 (Duck River)
	060400020502 (Wilson Creek)	060400020506 (Flat Creek)
	060400020503 (Spring Creek)	060400020507 (Duck River)
	060400020504 (Caney Creek)	
0604000206	060400020601 (Big Rock Creek)	060400020602 (Rock Creek)
0604000207	060400020701 (Globe Creek)	060400020703 (Silver Creek)
	060400020702 (Fountain Creek)	

Table 4-1. HUC-12 Drainage Areas are Nested Within HUC-10 Drainages. *NRCS worked with USGS to delineate the HUC-10 and HUC-12 drainage boundaries.*